

**INFORMATION  
DISCLOSURE  
STATEMENT**

Atty. Docket No.: 150.01300102

Serial No.: 10/828,686

Applicants: Vaartstra et al.

Confirmation No.: 4467

Application Filing Date: April 21, 2004

Group: 2812

Information Disclosure Statement mailed: July 12, 2004**U.S. PATENT DOCUMENTS**

Examiner Initial	Copies Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
<i>[Signature]</i>		5,256,244	10/26/93	Ackerman			
		5,742,322	04/21/98	Cranton et al.			
		5,908,947	06/01/99	Vaartstra			
		6,143,081	11/07/00	Shinriki et al.			
		6,203,613	03/20/01	Gates et al.			
		6,271,094	08/07/01	Boyd et al.			
		6,335,049	01/01/02	Basceri			
		6,342,445	01/29/02	Marsh			
		6,387,764	05/14/02	Curtis et al.			
<i>[Signature]</i>		6,730,164	05/04/04	Vaartstra et al.			

**FOREIGN PATENT DOCUMENTS**

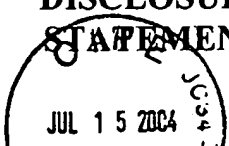
Examiner Initial	Copies Enclosed	Document Number	Date	Country	Class	Subclass	Translation	
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<i>[Signature]</i>	X	0 442 704 A2	12/02/91	EP				




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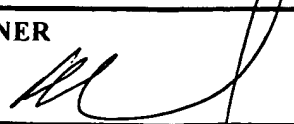

Examiner Initial	Copies Enclosed	Document Description
<i>[Signature]</i>	X	"Atomic Layer Deposition (ALD 2002) Conference, August 19-21, 2002, at Hanyang University in Seoul, Korea," Conference Schedule [online] [retrieved 2003-07-08]. Retrieved from the Internet:<URL:http://www.avs.org/conferences/ald/2002/program/aug19.html>; 3 pgs.
<i>[Signature]</i>	X	"Atomic Layer Deposition (ALD 2002) Conference, August 19-21, 2002, at Hanyang University in Seoul, Korea," Oral and slide Presentations [CD-ROM]. Available online from the Internet:<URL:https://www.avs.org/conferences/ald/2002/cd_form.html: 2 CDs.

**EXAMINER****Date Considered**

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	Application Filing Date: April 21, 2004	Group: 2812
	Information Disclosure Statement mailed: July <u>12</u> , 2004	

Examiner Initial	Copies Enclosed	Document Description
	X	Gordon et al., "Vapor deposition of metal oxides and silicates: possible gate insulators for future microelectronics," <i>Chem. Mater.</i> , 2001, 13(8):2463-4.
		Hawley, <i>The Condensed Chemical Dictionary</i> , 10 <sup>th</sup> Edition, Van Nostrand Reinhold Co., New York, 1981; 225-226.
	X	Hendrix et al., "Composition control of $\text{Jf}_{1-x}\text{Si}_x\text{O}_2$ films deposited on Si by chemical-vapor deposition using amide precursors," <i>Appl. Phys. Lett.</i> , 2002, Apr. 1; 80(13):2362-4.
	X	Lee et al., "High-k gate dielectric applications using ALD Hf-based oxides," <i>Solid State Technology</i> , 2003, Jan.; 46(1): 45-6, 56.
	X	Liu et al., "Atomic Layer Deposition of Hafnium Oxide Thin Films from Tetrakis(dimethylamino)Hafnium (TDMAH) and Ozone," <i>Mat Res Soc Symp Proc</i> , 2003;765:97-102.
	X	Maruyama et al., "Silicon dioxide thin films prepared by chemical vapor deposition from tetrakis (dimethylamino) silane and ozone," <i>Appl. Phys. Lett.</i> , 1993, Aug. 2; 63(5):611-13.
	X	Ohshita et al., "HfO <sub>2</sub> growth by low-pressure chemical vapor deposition using the $\text{Hf}(\text{N}(\text{C}_2\text{H}_5)_2)_4/\text{O}_2$ gas system," <i>Journal of Crystal Growth</i> , 2001; 233:292-7.
	X	Ohshita et al., "Using tetrakis-diethylamido-hafnium for HfO <sub>2</sub> thin-film growth in low-pressure chemical vapor deposition," <i>Thin Solid Films</i> , 2002; 406:215-18.
	X	Ritala et al., "Atomic layer deposition of oxide thin films with metal alkoxides as oxygen sources," <i>Science</i> , 2000, Apr. 14; 288:319-21.
	X	Suzuki et al., "Atomic Layer Deposition of HfO <sub>2</sub> using $\text{Hf}(\text{N}(\text{C}_2\text{H}_5)_2)_4$ and O <sub>3</sub> ," Poster Presentation, <i>ALD 2002 Conference</i> , Hanyang University, Seoul, 2002, Aug. 19; 14 pages.
		Vaartstra et al., "Syntheses and Structures of a Series of Very Low Coordinate Barium Compounds: $\text{Ba}[\text{N}(\text{SiMe}_3)_2]_2(\text{THF})_2$ , $\{\text{Ba}[\text{N}(\text{SiMe}_3)_2]_2(\text{THF})\}_2$ , and $\{\text{Ba}[\text{N}(\text{SiMe}_3)_2]_2\}_2$ , <i>Inorg. Chem.</i> , 1991; 30:121-5.
		Vehkamäki et al., "Growth of SrTiO <sub>3</sub> and BaTiO <sub>3</sub> Thin Films by Atomic Layer Deposition," <i>Electrochemical and Solid-State Letters</i> , 1999; 2(10):504-6.

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	Applicant(s): Vaartstra et al.	Confirmation No.: 4467
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	Information Disclosure Statement mailed: October 18, 2004	

**U.S. PATENT DOCUMENTS**

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
<i>69</i>		US 2003/0188682	10/09/03	Tois et al.			
<i>W</i>		US 2004/0096582	05/20/04	Wang et al.			

**FOREIGN PATENT DOCUMENTS**

Examiner Initial	Copy Enclosed	Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

**OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)**

Examiner Initial	Copy Enclosed	Document Description

<b>EXAMINER</b> <i>M</i>	<b>Date Considered</b> <i>9/2/05</i>
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